REMARKS

This Preliminary Amendment is in response to the Final Office Action dated April 30, 1999, and the Advisory Action dated June 29, 1999. This Preliminary Amendment has been submitted to more particularly claim the present invention. Claims 1-35 are pending in the present application. Applicant has amended claims 1, 18-25, and 27-34. Consequently, claims 1-35 remain pending in the present application.

In the above-mentioned Final Office Action, the Examiner objected to claims 19-25 and 27-33 because claim 19 depended upon itself and claims 20-25 and 27-33 depended on claim 19. Applicant has amended claims 19-25 and 27-33 to depend upon claim 18. Consequently, Applicant respectfully submits that the Examiner's objection to claims 19-25 and 27-33 has been overcome.

In the above-mentioned Final Office Action, the Examiner also rejected claims 1-3, 5, 11-12, 16-20, 22, 31-32, and 34-35 under 35 U.S.C. § 103 as being obvious in view of U.S. Patent No. 5,559,554 ("Uekane") in further view of U.S. Patent No. 5,821,997 ("Kawamura"). The Examiner rejected claims 4, 6-10, 14-15, 21, and 23-30 under 35 U.S.C. § 103 as being unpatentable over Uekane in view of Kawamura in further view of U.S. Patent No. 5,270,831 ("Parulski"). The Examiner also rejected claims 13 and 33 under 35 U.S.C. § 103 as being unpatentable over Uekane in view of Kawamura in further view of U.S. Patent No. 5,640,627 ("Nakano").

The Examiner rejected claims 1-3, 5, 11-12, 16-20, 22, 31-32, and 34-35 as being obvious in light of Uekane in view of Kawamura. In so doing, the Examiner drew Applicant's attention to Figures 12 and 14 and col. 1, lines 45-56 of Uekane, as well as col. 2, lines 37-51 of Kawamura. The Examiner stated that:

Uekane discloses a camera providing an image in the same orientation as the

orientation of the display. However, Uekane does not disclose compression of he [sic] image data before storing the data in memory or decompressing the image data prior to displaying the image. Kawamura does disclose compressing and decompressing image data . . .

Applicant respectfully traverses the Examiner's rejection. Claim 1 recites a method for "viewing an image in an capture unit." The image is a previously captured image and has a first orientation. A second orientation is associated with the image capture unit. The method recited in claim 1 also includes "determining whether the first orientation is different from the second orientation; decompressing the image; and displaying the image in the second orientation." Similarly, claim 18 recites a system for "viewing images in an image capture unit." The image is a previously captured image and is associated with a first orientation. The capture unit is associated with a second orientation. The system includes "a display to display the image in the second orientation; wherein the image is decompressed for viewing on the display." Claim 34 recites a digital camera that can display an image that is a previously captured image. The digital camera recited in claim 34 includes means for storing the image in a compressed format image and storing the first orientation, means for determining a second orientation of the digital camera, and means for comparing the first orientation and the second orientation. The digital camera recited in claim 34 also includes "means . . . for rotating the image from the first orientation to the second orientation if the first orientation is different from the second orientation; and a display coupled with the rotating means for displaying the image in the second orientation."

In contrast to conventional systems, the method, system, and digital camera recited in claims 1, 18, and 34 allow an image capture device to display a previously captured image in the same orientation as the capture device. Image capture devices, such as digital cameras, include a record mode and a play mode. In the play mode, images captured previously by the digital camera being used or another image capture device can be viewed. Specification, page 2, lines 2-4. In the record mode, the display is used as a viewfinder. While in record mode, images can be

captured in the orientation that they are currently shown on the display. Specification, page 1,

line 19 – page 2, line 2. Thus, if the digital camera is one orientation, the image captured may be

a portrait image. See, for example, Figure 8B. If the digital camera is in another orientation, the

image capture may be a landscape image. See, for example, Figure 8A. When the previously

captured image is viewed later, in play mode, the digital camera may be in a different orientation

than when the image was captured. If a conventional capture unit is employed, the image is

merely displayed in its original orientation with respect to the digital camera. The user will have

to rotate the digital camera to view the image in the proper orientation. Specification page 2, line

20 – page 3, line 2. Consequently, viewing previously captured images can be inconvenient for

the user.

To remedy this, the method, system, and digital camera recited in claims 1, 18, and 34,

respectively, can automatically rotate the previously captured image when the image is to be

displayed. When an image is captured, the first orientation of the image is also stored. Thus, as

recited in claims 1, 18, and 34, the image is associated with a first orientation. Typically, a

captured image is stored in a compressed format. When the image is to be viewed later, the

inventions recited in independent claims 1, 18, and 34 compare the first orientation to the second

orientation of the image capture device. The method recited in claim 1 decompresses and

displays the image in the second orientation. The system recited in claim 18 includes "a display

to display the image in the second orientation[of the digital camera]; wherein the image is

decompressed for viewing on the display." Similarly, the digital camera recited in claim 34

includes "means . . . for rotating the image from the first orientation to the second orientation if

the first orientation is different from the second orientation . . ." Thus, when the first orientation

differs from the second orientation, the image is rotated to the second orientation and provided to

the display. When the first orientation and the second orientation are the same, the image is

provided to the display in the same orientation. As a result, an image can be captured in the desired orientation during a record mode, and displayed in the same orientation as the image capture device in a play mode. Thus, through the combination of elements recited in claims 1, 18, or 34, a previously captured image is decompressed and displayed in the same orientation as the image capture device. A user no longer has to rotate the image capture device to view the image in the proper orientation. Thus, viewing of previously captured images is simplified.

In contrast, Uekane in view of Kawamura fails to teach or suggest the method, system, or digital camera recited in claims 1, 18, or 34, respectively. Uekane is directed at a video camera having a display that can rotate with respect to the camera lens. Uekane, col. 1, lines 7-13. Uekane discusses three orientations: normal, self-image picture-taking state I (180 degree rotation in one direction around the joint), and self-image picture-taking state II (180 degree rotation in the opposite direction around the joint). Uekane, col. 10, lines 3-15, Figures 12, 13, and 14. Uekane is concerned with allowing a user to view the image when the user is capturing the image. For example, Uekane states that "[f]or effecting the self-image taking, with the camera portion 1 fixed, monitor portion 2 is rotated upside down . . . [T]his state is called self-image picture-taking state I . . ." Uekane, col. 5, lines 9-17. Similarly, Uekane also states that "[f]or effecting the self-image taking[in another state], with the monitor portion 2 fixed, camera portion 1 is rotated upside down . . . [T]his state is called self-image picture-taking state II . . ." Uekane, col. 5, lines 24-30. Self-image picture-taking states I and II are also depicted in Figures 13 and 14, respectively. The images are then captured on a video tape. Uekane, col. 14, lines 5-12.

Although Uekane ensures that the image is always upright, this teaching of Uekane is used to allow a user to view the image upright as the image is being captured by the video camera. This ability is desirable in Uekane because the screen can rotate with respect to the lens.

Thus, Uekane allows a user to more easily use the screen as a viewfinder in the self-image picture-taking I and self-image picture-taking II states. This function is similar to the record mode in conventional digital cameras, discussed above, which also allows the display to be used s a viewfinder. However, Uekane fails to mention viewing previously captured images on the screen. Uekane is, therefore, also devoid of reference to decompressing an image before it is provided to the screen. Because Applicant can find no mention of the ability of the video camera of Uekane to display previously captured images, Uekane also fails to discuss in what orientation the previously captured images would be provided to the display. For example, Uekane does not discuss how a section of video recorded in the self-image picture-taking state I might be viewed if the video camera is in the normal mode. Consequently, Uekane fails to teach or suggest the method, system, and digital camera recited in claim 1, 18, and 34, respectively.

Kawamura fails to remedy the defect of Uekane. Kawamura discloses a digital camera for digitally capturing still images. Thus, Kawamura does disclose compressing the image data for storage. Kawamura, Abstract. Furthermore, Kawamura is directed at allowing multiple levels of compression for the image data. See, e.g., Kawamura, Figure 2A and Abstract. Kawamura also discloses decompressing the compressed image data. See, e.g., Kawamura Figure 2B.

One of ordinary skill in the art would not be motivated to combine Kawamura with Uekane. Uekane is directed toward a video camera that facilitates a user's view of video images currently being captured. Kawamura is directed toward improving data compression in a digital still camera. The video camera of Uekane and the digital camera of Kawamura also apparently function for their intended purpose. Thus, one of ordinary skill in the art would not be motivated to add the teachings of Kawamura to Uekane.

Even if the teachings of Kawamura are added to Uekane, the combination would neither teach nor suggest the method, system, or digital camera recited in claims 1, 18, or 34,

respectively. If Kawamura was added to Uekane, the combination may retain the ability to allow the user to use the screen in Uekane as a viewfinder, even in the self-image picture-taking states I and II, as disclosed in Uekane. The combination might also teach digitally saving the video data obtained in Uekane in a compressed format. However, adding data compression and decompression to Uekane neither teaches nor suggests the method, system, or digital camera recited in claims 1, 18, and 34. In particular, Kawamura is also devoid of reference to displaying a previously stored image in the same orientation as the digital camera. Thus, there is nothing in either Uekane or Kawamura that teaches that a previously captured image can be decompressed and displayed in the "second orientation" of the digital camera. Thus, Uekane in view of Kawamura fails to teach or suggest the method, system, and digital camera recited in claims 1, 18, and 34, respectively.

Claims 2-3, 5, 11-12, and 16-17 depend on independent claim 1. Claims 19-20, 22, and 31-32 depend on independent claim 18. Claim 35 depends upon independent claim 34. Consequently, the arguments herein apply with full force to claims 2-3, 5, 11-12, 16-17, 19-20, 22, 31-32, and 35. Thus, Applicant respectfully submits that claims 2-3, 5, 11-12, 16-17, 19-20, 22, 31-32 and 35 are allowable over Uekane in view of Kawamura.

The Examiner also rejected claims 4, 6-10, 14-15, 21, and 23-30 under 35 U.S.C. § 103 as being obvious in light of Uekane in view of Kawamura in further view of Parulski. In so doing, the Examiner stated that:

> **Uekane does not disclose displaying an image when the image is in a portrait orientation or 90 degrees with respect to the display. Parulski does disclose displaying an image when the image is in a portrait orientation (column 3, lines 46-58). Improved functionality of the display would have been a desirable feature in the image capture apparatus of Uekane and Parulski recognizes the improved use of display screen area and easy [sic] in not requiring the display to be mechanically rotated when viewing the image.**

Applicant respectfully traverses the Examiner's rejection. Claims 4, 6-10, and 14-15

depend upon independent claim 1. Claims 21 and 23-30 depend upon independent claim 18. Consequently, the arguments herein with respect to Uekane and Kawamura apply with full force to claims 4, 6-10, 14-15, 21, and 23-30. As discussed above, Uekane fails to teach or suggest a method or system for allowing an image capture device to decompress a previously captured image and display the previously captured image in the same orientation as the image capture device.

Parulski fails to remedy this defect of Uekane in view of Kawamura. Parulski is directed at a system for scanning images that have been captured on photographic film. Parulski, Abstract lines 1-6. The system of Parulski scans in images on a strip of photographic film. Parulski col. 4, lines 32-37. Once the photographic film has been scanned, a user views the scanned images, determines the orientations of the scanned images, and informs the system of the orientations of the scanned images. Parulski col. 5, lines 63-67; col. 6, lines 9-15. The scanned images are then stored on a transportable medium, such as a CD. Parulski, col. 4, lines 50-59. Once the scanned images have been stored to a transportable medium, the transportable medium can be taken to a player which allows the scanned image to be displayed. Parulski, col. 4, lines 50-59; Figure 1, item 20; and Figure 4. This player is apparently separate from the unit which scans the images. See Parulski, Figures 1 and 4. The player can use the orientation of the scanned images to display the scanned images in the desired orientation. Thus, the transportable medium is placed in a separate playback unit in order for the images to be displayed in the desired orientation.

Parulski is concerned with processing of still images that have previously been captured on photographic film. This is in contrast to Uekane, which is directed to a video camera, and Kawamura, which is directed to a digital camera. If Uekane is combined with Kawamura to provide data compression, there is no need to use Parulski because the data is already stored digitally. Consequently, one of ordinary skill in the art would not be motivated to combine

-11-

Parulski with Uekane and Kawamura.

Even if Parulski is added to the teachings of Uekane and Kawamura, the combination would neither teach nor suggest the method and systems of claims 4, 6-10, 14-15, 21, and 23-30. If Parulski were added to Uekane, the resultant might allow portions of video images captured by the video camera of Uekane and stored in compressed format by Kawamura to be provided to the system of Parulski and stored on another transportable medium. However, in order to view the images in the desired orientation, a separate player having the ability to decode the orientation provided by the user is utilized. Consequently, Uekane in view of Kawamura in further view of Parulski still fails to teach a method or system which allows an image capture device to decompress and display images in the same orientation as the image capture device. Uekane in view of Kawamura in further view of Parulski, therefore, fails to teach or suggest the methods and systems recited in claims 4, 6-10, 14-15, 21, and 23-30. Accordingly, Applicant respectfully submits that claims 4, 6-10, 14-15, 21, and 23-30 are allowable over the cited references.

The Examiner also rejected claims 13 and 33 under 35 U.S.C. § 103 as being obvious in light of Uekane and Kawamura in view of Nakano. In so doing, the Examiner stated that:

> **Uekane does not disclose a directional icon displayed on the display. Nakano does disclose displaying select icons according to the orientation when the camera is capturing a[n] image. This allows the use[r] to identify the orientation in which the image is being captured by the icon displayed (Figure 8, elements 80, 82, and 84 and column 4, lines 12-27).**

Applicant respectfully traverses the Examiner's rejection. Claims 13 and 33 depend upon independent claims 1 and 18, respectively. Consequently, the arguments herein with respect to Uekane apply with full force to claims 13 and 33. As discussed above, Uekane in view of Kawamura fails to teach or suggest a method or system for allowing an image capture device to decompress a previously captured image and display the image in the same orientation as the image capture device.
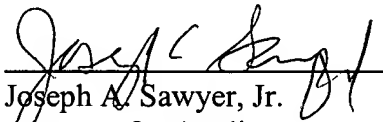
Nakano fails to remedy the defect of Uekane in view of Kawamura. Nakano is directed at allowing data to be displayed on a camera when the camera is different orientations. Nakano, Abstract. In order to do so, Nakano provides an LCD display which has an array of segments. Nakano, Figure 5. Different segments in the array may be activated in order to display information in the proper orientation. Nakano, col. 2, lines 56-61 and Figure 5. In an alternate embodiment, Nakano provides different LCD panels which display the same information, but in different orientations. Nakano col. 4, lines 12-27, Figure 8. Although Nakano allows information to be displayed in different orientations, Applicant can find no mention in Nakano of either decompressing a previously captured image or displaying the previously captured image in the appropriate orientation. Moreover, Applicant can find no mention in Nakano of any manipulation of the image to ensure that the orientation of the image matches that of the image capture device.

Uekane in view of Kawamura in further view of Nakano fails to teach or suggest the method and system recited in claims 13 and 33, respectively. If Nakano were added to Uekane in view of Kawamura, the video camera of Uekane might be equipped with segmented LCDs, as in Figure 5 of Nakano, or with multiple LCD panels, as in Figure 8 of Nakano. The video camera might also be capable of storing video data in a compressed format. However, the combination would still be incapable of decompressing a previously captured image and displaying the image in the proper orientation. Consequently, Uekane in view of Kawamura in further view of Nakano fails to teach or suggest the method and system recited in claims 13 and 33, respectively. Accordingly, Applicant respectfully submits that claims 13 and 33 are allowable over the cited references.

In view of the foregoing, it is submitted that the claims in the application are patentable over the cited reference and are in condition for allowance. Reconsideration of the rejections and objections is requested.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

Joseph A. Sawyer, Jr.
Attorney for Applicant
Reg. No. 30,801
(650) 493-4540